

REMARKS/ARGUMENTS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested.

Claims 1, 3-6 and 8-11 are now pending.

Original claims 1-2 were rejected under 35 USC 102(b) as being anticipated by Frank (DE '316). Applicant respectfully traverses this rejection. However, to advance prosecution, claim 1 has been amended to incorporate the limitations of dependent claim 7, so that the Examiner's rejection in this regard has been mooted.

Original claims 3 and 7-8 were rejected under 35 USC 103(a) as being unpatentable over Frank '316 in view of Frank '506. Claim 3 now depends from claim 4 so that the rejection thereof has been mooted. Applicant respectfully traverses this rejection with respect to amended claims 1 and 8.

As amended above, claim 1 provides that accumulation chamber (112) is formed inside the common rail so that the central axis of the accumulation chamber is deviated (offset) from the central axis of the common rail. As a result, a thick wall portion is defined. Furthermore, pipe connecting portions are formed at the thick wall portion defined as a result of the offset accumulating chamber. Those pipe connecting portions are flat surface(s) formed on an outer periphery of the thick wall portion. Defining a thick wall portion as claimed and providing flat surface(s) at the thick wall portion ensures sufficient strength at the intersection between the communication hole (113) and the accumulation chamber (112). The thick wall portion (116) also ensures the machining margin for the pressure receiving seat surface (118) which is fitted with the connection head portion (122) of the fuel pipe (102). The flat surface (115) provided radially outside the thick wall portion (116) ensures an area for bonding a sleeve (104) to the common rail (101) without increasing the external diameter of the common rail. See in this regard page 36, lines 1-26 of the specification.

In Frank '316, as shown in Figure 4, the connection head of the fuel pipe is screwed into a female screw formed inside a base of an accumulator (a common rail). Because a threaded connection is provided in DE '316, a pipe connector, such as a sleeve connected with the connection head of the fuel pipe, is not required and not used. Moreover, no flat surface for bonding the pipe connector is required nor is any formed on the outer periphery of the base of the accumulator. Indeed, the female screw bore extends to the round outer periphery of a common rail. It is, therefore, clear that there are no flat surfaces in Frank '316 to which pipe connectors are bonded. Thus, there is no teaching or suggestion in Frank '316 that there is any use or need for a flat surface on the outer periphery of the thick wall portion. It is therefore respectfully submitted that claim 1 is not anticipated by nor obvious from Frank '313.

The Examiner's further reliance on Frank '506 does not overcome the deficiencies of Frank '313. Furthermore, it is respectfully submitted that it is improper under 35 USC 103 to modify Frank '316 in view of Frank '506.

Frank '506 shows the structure of a connection between an accumulator and a fuel pipe. In this respect, however, Frank's teachings are limited as there is no illustration of the high pressure fuel accumulator structure taken transverse to the longitudinal axis of the common rail. Therefore, it is not possible to determine with certainty the profile of the surface to which the connectors 2 are apparently bonded at 3. Accordingly, Frank does not provide any teaching as to whether this surface is or is not flat. Furthermore, as noted above, Frank '316 teaches the threaded connection of the fuel pipe to the common rail. Even if Frank '506 teaches a flat surface for bonding, because Frank '316 teaches only the threaded assembly of the fuel pipe to the common rail, it would be unobvious to modify Frank '316 to include a bonding surface as in Frank '506, even if that surface is flat. It is further respectfully noted that the wall portion to which Frank '506 teaches the connector 2 as being bonded is thinner than the remaining portions of the wall. As such, Frank '506 teaches away from the concept of the invention of providing a connection at a thick wall portion.

Section 103 does not allow the Examiner to engage in picking and choosing from the prior art only to the extent that it will support a holding of obviousness, while excluding parts of the prior art essential to the full appreciation of what the prior art suggests to one of ordinary skill in the art. In re Wesslau, 147 USPQ 391 (CCPA 1975).

It is respectfully submitted that Frank '316 and Frank '506 clearly teach different common rail structures and different connector assemblies for fuel ducts. The skilled artisan, in the absence of applicant's disclosure, would select the connection modes of Frank '316 and Frank '506 in the alternative and would not attempt the piece-meal combination that the Examiner has suggested. Even if the teachings of Frank '506 were followed, clearly the connection would be made to a thin wall part and not a thick wall part as Frank '506 does not teach that the common rail would be formed with an off center bore to have a thick portion and a thin portion and further, Frank '506 clearly teaches a connector portion attached to a reduced diameter (apparently by machining) portion of the common rail.

The initial burden of establishing a basis for denying patentability to a claimed invention rests upon the Examiner. In re Piasecki, 745 F. 2d 1468, 223 USPQ 785 (Fed. Cir. 1984). In establishing a prima facie case of obviousness under 35 U.S.C. § 103, it is incumbent upon the Examiner to provide a reason why one of ordinary skill in the art would have been led to arrive at the claimed invention from the prior art. Ex parte Clapp, 227 USPQ 972 (BPAI 1985). To this end, rejections based on 35 USC §103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Examiner has initial duty of supplying the factual basis for the rejection. The Examiner may not resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis. See In re Wanery, 379 F.2d 1011, 1017, 154 USPQ 173, 177-78 (CCPA 1967).

For all the reasons advanced above, it is respectfully submitted that the skilled artisan would not modify Frank '316 in view of Frank '506 and, further, without the benefit of applicant's disclosure, the claimed structure would not result from the combination of these references. Indeed, because Frank '316 does not use a pipe connector such as a sleeve connected with the connection head of the fuel pipe, the connecting structure of the fuel pipe disclosed in Frank '506 which uses such a pipe connector, cannot simply be applied to Frank '316 without redesigning Frank '316 and apparently destroying the invention upon which that disclosure is based. However, it is not proper under 35 USC 103 to modify a prior art patent in a manner which would destroy that on which the invention of the prior art patent was based. Ex parte Hartman, 186 USPQ 366,67 (PTO Bd. App. 1974).

For all the reasons advanced above, reconsideration and withdrawal of the rejection based on Frank '316 and Frank '506 is requested.

Claim 5 was rejected under 35 USC 103 as unpatentable over Frank '316 in view of EP '364. Claim 5 now depends from claim 4 so that this rejection has been mooted.

Applicant notes with appreciation the Examiner's indication that claims 4, 6 and 9-10 contain allowable subject matter. Each of claims 4, 6, 9 and 10 has been rewritten above in independent form. It is therefore respectfully submitted that these claims should now be allowed.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and an early Notice to that effect is earnestly solicited.

KONDO
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Respectfully submitted,

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By:

A handwritten signature in cursive script, appearing to read "Michelle N. Lester", written over a horizontal line.

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